

**WHAT IS CLAIMED IS:**

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1. A memory address space extension device comprising:  
a definition table defining an access right of a task ID  
(identification) with respect to data area;

5 a task ID register for storing therein the task ID of a task during  
execution;

an extraction means for extracting a data area ID from a CPU  
(central processing unit) address inputted previously;

10 a judgement means for judging as to whether or not it is capable of  
being permitted that the task during execution indicated by the task ID  
accesses the data area indicated by the data area ID while referring to  
said definition table from both of data area ID extracted previously and  
the task ID stored in said task ID register.

2. A memory address space extension device as claimed in claim 1,  
wherein there are provided an address operational means for converting  
said CPU address into an extended address, and a memory having the  
extended address converted previously, when said judgement means  
5 judges that judgement result according to said judgement means is a  
result that the task during execution accesses the data area, said address  
operational means executes said conversion processing while causing said  
memory with extended address to support.

3. A memory address space extension device as claimed in claim 1,  
wherein, as to said definition table, it causes combination that access is  
permissible or in-permissible with respect to read and / or write to said  
data area respectively to be defined.

4. A memory address space extension device as claimed in claim 1,  
wherein there is provided a preparation means for preparing said

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definition table.

5. A storage medium for storing therein a program in order to execute the processing of:

a storing processing for storing a task ID of a task during execution;

5 an extraction processing for extracting a data area ID from a CPU address inputted previously; and

10 a processing for judging as to whether or not it is capable of being permitted that the task during execution indicated by the task ID accesses the data area indicated by the data area ID while referring to said definition table from both of data area ID extracted previously and the task ID stored in said task ID register.

6. A storage medium for storing therein a program as claimed in claim 5, wherein said program executes the processing of an address operational processing for converting said CPU address into an extended address when judgement result according to said judgement processing is  
5 that the task is permitted that the task during execution accesses the data area.

7. A memory address space extension device comprising:

a definition table forming means for forming said definition table;

a definition table for defining an access right of a task with respect to a data area; and

5 an access right judgement means for judging whether or not it causes the access right to the data area requested by the task to be given with respect to the task according to said definition table.

8. A memory address space extension device as claimed in claim

A 10 7, wherein said definition table defines as to whether or not said task possesses an access right for accessing prescribed data area in every task ID given to the task.

5 9. A memory address space extension device as claimed in claim 7, wherein said definition table defines as to whether or not said task possesses an access right for accessing prescribed data area in every task ID given to the task and / or in every interruption number given to interruption processing.

5 10. A memory address space extension device as claimed in claim 7, wherein said access right judgement means judges whether it causes the access right to the data area requested by said task to be given according to said task ID, and the data area ID indicating the data area requested by said task.

5 11. A memory address space extension device as claimed in claim 8, wherein said access right judgement means judges whether it causes the access right to the data area requested by said task to be given according to said task ID, and the data area ID indicating the data area requested by said task.

5 12. A memory address space extension device as claimed in claim 7, wherein said access right judgement means judges whether it causes the access right to the data area requested by said task to be given according to any one of said task ID and said interruption processing number, and according to the data area ID indicating the data area requested by said task.

13. A memory address space extension device as claimed in claim

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5 9, wherein said access right judgement means judges whether it causes the access right to the data area requested by said task to be given according to any one of said task ID and said interruption processing number, and according to the data area ID indicating the data area requested by said task.

14. A memory address space extension device as claimed in claim 7, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

15. A memory address space extension device as claimed in claim 8, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

16. A memory address space extension device as claimed in claim 9, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

17. A memory address space extension device as claimed in claim 10, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

18. A memory address space extension device as claimed in claim 11, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

19. A memory address space extension device as claimed in claim 12, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

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20. A memory address space extension device as claimed in claim 13, wherein said definition table defines whether or not it causes access to be permitted with respect to said prescribed data area in every said task.

21. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

(1) causing only write of the data to be permitted;

(2) causing read of the data to be permitted;

5 (3) causing write of the data and read of the data to be permitted; and

(4) causing no-access to be permitted,

with respect to said prescribed data area in every said task.

22. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

(1) causing only write of the data to be permitted;

(2) causing read of the data to be permitted;

5 (3) causing write of the data and read of the data to be permitted; and

(4) causing no-access to be permitted,

with respect to said prescribed data area in every said task.

23. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

(1) causing only write of the data to be permitted;

(2) causing read of the data to be permitted;

5 (3) causing write of the data and read of the data to be permitted; and

(4) causing no-access to be permitted,

with respect to said prescribed data area in every said task.

24. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

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5 (1) causing only write of the data to be permitted;  
(2) causing read of the data to be permitted;  
(3) causing write of the data and read of the data to be permitted; and  
(4) causing no-access to be permitted,  
with respect to said prescribed data area in every said task.

25. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

5 (1) causing only write of the data to be permitted;  
(2) causing read of the data to be permitted;  
(3) causing write of the data and read of the data to be permitted; and  
(4) causing no-access to be permitted,  
with respect to said prescribed data area in every said task.

26. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

5 (1) causing only write of the data to be permitted;  
(2) causing read of the data to be permitted;  
(3) causing write of the data and read of the data to be permitted; and  
(4) causing no-access to be permitted,  
with respect to said prescribed data area in every said task.

27. A memory address space extension device as claimed in claim 7, wherein said definition table defines any one of:

5 (1) causing only write of the data to be permitted;  
(2) causing read of the data to be permitted;  
(3) causing write of the data and read of the data to be permitted; and  
(4) causing no-access to be permitted,  
with respect to said prescribed data area in every said task.

A10 28. A memory address space extension device as claimed in claim 9, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

29. A memory address space extension device as claimed in claim 12, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

30. A memory address space extension device as claimed in claim 13, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

31. A memory address space extension device as claimed in claim 14, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

32. A memory address space extension device as claimed in claim 15, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

33. A memory address space extension device as claimed in claim 16, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

34. A memory address space extension device as claimed in claim 17, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

35. A memory address space extension device as claimed in claim 18, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

36. A memory address space extension device as claimed in claim 19, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

37. A memory address space extension device as claimed in claim 20, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

38. A memory address space extension device as claimed in claim 21, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

39. A memory address space extension device as claimed in claim 22, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.



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40. A memory address space extension device as claimed in claim 23, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

41. A memory address space extension device as claimed in claim 24, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

42. A memory address space extension device as claimed in claim 25, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

43. A memory address space extension device as claimed in claim 26, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

44. A memory address space extension device as claimed in claim 27, wherein there is further provided an interruption number generation means for generating interruption number with respect to interruption processing according to hardware.

45. A memory address space extension device as claimed in claim 9, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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46. A memory address space extension device as claimed in claim 12, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

47. A memory address space extension device as claimed in claim 13, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

48. A memory address space extension device as claimed in claim 14, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

49. A memory address space extension device as claimed in claim 15, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

50. A memory address space extension device as claimed in claim 16, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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5 51. A memory address space extension device as claimed in claim 17, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 52. A memory address space extension device as claimed in claim 18, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 53. A memory address space extension device as claimed in claim 19, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 54. A memory address space extension device as claimed in claim 20, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 55. A memory address space extension device as claimed in claim 21, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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56. A memory address space extension device as claimed in claim 22, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

57. A memory address space extension device as claimed in claim 23, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

58. A memory address space extension device as claimed in claim 24, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

59. A memory address space extension device as claimed in claim 25, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

60. A memory address space extension device as claimed in claim 26, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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5 61. A memory address space extension device as claimed in claim 27, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 62. A memory address space extension device as claimed in claim 28, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 63. A memory address space extension device as claimed in claim 29, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 64. A memory address space extension device as claimed in claim 30, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 65. A memory address space extension device as claimed in claim 31, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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5 66. A memory address space extension device as claimed in claim 32, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 67. A memory address space extension device as claimed in claim 33, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 68. A memory address space extension device as claimed in claim 34, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 69. A memory address space extension device as claimed in claim 35, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 70. A memory address space extension device as claimed in claim 36, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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5 71. A memory address space extension device as claimed in claim 37, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 72. A memory address space extension device as claimed in claim 38, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 73. A memory address space extension device as claimed in claim 39, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 74. A memory address space extension device as claimed in claim 40, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 75. A memory address space extension device as claimed in claim 41, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

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5 76. A memory address space extension device as claimed in claim 42, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 77. A memory address space extension device as claimed in claim 43, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 78. A memory address space extension device as claimed in claim 44, wherein there is further provided an interruption number decoding means for decoding an interruption number from an interruption instruction with respect to said interruption instruction according to software.

5 79. A memory address space extension device as claimed in claim 7, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

80. A memory address space extension device as claimed in claim 8, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory



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5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

81. A memory address space extension device as claimed in claim 9, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

82. A memory address space extension device as claimed in claim 10, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

83. A memory address space extension device as claimed in claim 11, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area

A10 according to said access right judgement means, before said memory with extended address supports said address operational means.

84. A memory address space extension device as claimed in claim 12, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

85. A memory address space extension device as claimed in claim 13, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

86. A memory address space extension device as claimed in claim 14, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

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5 87. A memory address space extension device as claimed in claim 15, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 88. A memory address space extension device as claimed in claim 16, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 89. A memory address space extension device as claimed in claim 17, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

90. A memory address space extension device as claimed in claim 18, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory

A10 5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

91. A memory address space extension device as claimed in claim 19, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

92. A memory address space extension device as claimed in claim 20, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

93. A memory address space extension device as claimed in claim 21, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area

A10 according to said access right judgement means, before said memory with extended address supports said address operational means.

5 94. A memory address space extension device as claimed in claim 22, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 95. A memory address space extension device as claimed in claim 23, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 96. A memory address space extension device as claimed in claim 24, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

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5 97. A memory address space extension device as claimed in claim 25, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 98. A memory address space extension device as claimed in claim 26, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 99. A memory address space extension device as claimed in claim 27, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

100. A memory address space extension device as claimed in claim 28, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory

5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

101. A memory address space extension device as claimed in claim 29, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

102. A memory address space extension device as claimed in claim 30, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

103. A memory address space extension device as claimed in claim 31, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area

AI according to said access right judgement means, before said memory with extended address supports said address operational means.

104. A memory address space extension device as claimed in claim 32, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

105. A memory address space extension device as claimed in claim 33, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

106. A memory address space extension device as claimed in claim 34, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.



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107. A memory address space extension device as claimed in claim 35, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

108. A memory address space extension device as claimed in claim 36, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

109. A memory address space extension device as claimed in claim 37, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

110. A memory address space extension device as claimed in claim 38, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory

AP 5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

111. A memory address space extension device as claimed in claim 39, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

112. A memory address space extension device as claimed in claim 41, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

113. A memory address space extension device as claimed in claim 42, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area

A10 according to said access right judgement means, before said memory with extended address supports said address operational means.

114. A memory address space extension device as claimed in claim 43, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

115. A memory address space extension device as claimed in claim 44, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

116. A memory address space extension device as claimed in claim 45, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

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117. A memory address space extension device as claimed in claim 46, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

118. A memory address space extension device as claimed in claim 47, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

119. A memory address space extension device as claimed in claim 48, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

120. A memory address space extension device as claimed in claim 49, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory

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5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

121. A memory address space extension device as claimed in claim 50, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

122. A memory address space extension device as claimed in claim 51, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

123. A memory address space extension device as claimed in claim 52, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area

A10 according to said access right judgement means, before said memory with extended address supports said address operational means.

124. A memory address space extension device as claimed in claim 53, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

125. A memory address space extension device as claimed in claim 54, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

126. A memory address space extension device as claimed in claim 55, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

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127. A memory address space extension device as claimed in claim 56, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

128. A memory address space extension device as claimed in claim 58, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

129. A memory address space extension device as claimed in claim 59, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

130. A memory address space extension device as claimed in claim 60, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory

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5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

131. A memory address space extension device as claimed in claim 61, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

132. A memory address space extension device as claimed in claim 62, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

133. A memory address space extension device as claimed in claim 63, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area



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according to said access right judgement means, before said memory with extended address supports said address operational means.

134. A memory address space extension device as claimed in claim 64, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

135. A memory address space extension device as claimed in claim 65, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

136. A memory address space extension device as claimed in claim 66, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

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5 137. A memory address space extension device as claimed in claim 67, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 138. A memory address space extension device as claimed in claim 68, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

5 139. A memory address space extension device as claimed in claim 69, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

140. A memory address space extension device as claimed in claim 70, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory

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5 having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

141. A memory address space extension device as claimed in claim 71, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

142. A memory address space extension device as claimed in claim 72, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

143. A memory address space extension device as claimed in claim 73, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address  
5 operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area

A10 according to said access right judgement means, before said memory with extended address supports said address operational means.

144. A memory address space extension device as claimed in claim 74, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

145. A memory address space extension device as claimed in claim 75, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

146. A memory address space extension device as claimed in claim 76, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

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147. A memory address space extension device as claimed in claim 77, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

148. A memory address space extension device as claimed in claim 78, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

149. A memory address space extension device as claimed in claim 79, wherein there is further provided an address operational means for converting the CPU address into the extended address, and a memory having the extended address converted previously wherein said address operational means causes said CPU address to be converted into the extended address when said task is permitted to access to said data area according to said access right judgement means, before said memory with extended address supports said address operational means.

150. A storage medium storing therein a program in order to execute the processing of:

a definition table preparation processing for preparing said

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definition table;

5 a reference processing for definition table which defines an access right of a task with respect to data area; and

an access right judgement processing for judging whether or not it causes the access right for the data area requested by a task to be given to said task according to said definition table.

151. A storage medium storing therein a program as claimed in claim 150, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data  
5 area to be seen in every task ID given to said task.

152. A storage medium storing therein a program as claimed in claim 150, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data  
5 area to be seen in every task ID given to said task and / or in every interruption number given to the interruption processing.

153. A storage medium storing therein a program as claimed in claim 150, wherein said access right judgement processing judges whether or not said task possesses the access right for accessing prescribed data area according to said task ID and / or said data area ID  
5 indicating the data area requested by said task.

154. A storage medium storing therein a program as claimed in claim 151, wherein said access right judgement processing judges whether or not said task possesses the access right for accessing prescribed data area according to said task ID and / or said data area ID

5 indicating the data area requested by said task.

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155. A storage medium storing therein a program as claimed in claim 150, wherein said access right judgement processing judges whether or not said task possesses the access right for accessing prescribed data area according to any one of said task ID and said  
5 interruption processing number and / or said data area ID indicating the data area requested by said task.

156. A storage medium storing therein a program as claimed in claim 153, wherein said access right judgement processing judges whether or not said task possesses the access right for accessing prescribed data area according to any one of said task ID and said  
5 interruption processing number and / or said data area ID indicating the data area requested by said task.

157. A storage medium storing therein a program as claimed in claim 150, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data  
5 area to be seen in every said task.

158. A storage medium storing therein a program as claimed in claim 151, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data  
5 area to be seen in every said task.

159. A storage medium storing therein a program as claimed in claim 152, wherein said reference processing for definition table is the

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5 reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data area to be seen in every said task.

5 160. A storage medium storing therein a program as claimed in claim 153, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data area to be seen in every said task.

5 161. A storage medium storing therein a program as claimed in claim 154, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data area to be seen in every said task.

5 162. A storage medium storing therein a program as claimed in claim 155, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data area to be seen in every said task.

5 163. A storage medium storing therein a program as claimed in claim 156, wherein said reference processing for definition table is the reference processing that it causes the definition table defining whether or not said task possesses the access right for accessing prescribed data area to be seen in every said task.

164. A storage medium storing therein a program as claimed in claim 150, wherein said reference processing for definition table is the



reference processing that it causes any one of:

- (1) allowing only write of the data to be permitted;
- (2) allowing read of the data to be permitted;
- (3) allowing write of the data and read of the data to be permitted;

and

- (4) allowing no-access to be permitted,

to be seen with respect to said prescribed data area in every said task.

165. A storage medium storing therein a program as claimed in claim 151, wherein said reference processing for definition table is the reference processing that it causes any one of:

- (1) allowing only write of the data to be permitted;
- (2) allowing read of the data to be permitted;
- (3) allowing write of the data and read of the data to be permitted;

and

- (4) allowing no-access to be permitted,

to be seen with respect to said prescribed data area in every said task.

166. A storage medium storing therein a program as claimed in claim 152, wherein said reference processing for definition table is the reference processing that it causes any one of:

- (1) allowing only write of the data to be permitted;
- (2) allowing read of the data to be permitted;
- (3) allowing write of the data and read of the data to be permitted;

and

- (4) allowing no-access to be permitted,

to be seen with respect to said prescribed data area in every said task.

167. A storage medium storing therein a program as claimed in claim 153, wherein said reference processing for definition table is the

reference processing that it causes any one of:

- (1) allowing only write of the data to be permitted;
- (2) allowing read of the data to be permitted;
- (3) allowing write of the data and read of the data to be permitted;

and

- (4) allowing no-access to be permitted,

to be seen with respect to said prescribed data area in every said task.

168. A storage medium storing therein a program as claimed in claim 154, wherein said reference processing for definition table is the reference processing that it causes any one of:

- (1) allowing only write of the data to be permitted;
- (2) allowing read of the data to be permitted;
- (3) allowing write of the data and read of the data to be permitted;

and

- (4) allowing no-access to be permitted,

to be seen with respect to said prescribed data area in every said task.

169. A storage medium storing therein a program as claimed in claim 155, wherein said reference processing for definition table is the reference processing that it causes any one of:

- (1) allowing only write of the data to be permitted;
- (2) allowing read of the data to be permitted;
- (3) allowing write of the data and read of the data to be permitted;

and

- (4) allowing no-access to be permitted,

to be seen with respect to said prescribed data area in every said task.

170. A storage medium storing therein a program as claimed in claim 156, wherein said reference processing for definition table is the

reference processing that it causes any one of:

- 5 (1) allowing only write of the data to be permitted;  
 (2) allowing read of the data to be permitted;  
 (3) allowing write of the data and read of the data to be permitted;  
 and  
 (4) allowing no-access to be permitted,  
 to be seen with respect to said prescribed data area in every said task.

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 171. A storage medium storing therein a program as claimed in claim 152, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

172. A storage medium storing therein a program as claimed in claim 155, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

173. A storage medium storing therein a program as claimed in claim 156, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

174. A storage medium storing therein a program as claimed in claim 157, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

175. A storage medium storing therein a program as claimed in claim 158, wherein said program further executes interruption number

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generation processing for generating interruption number to interruption processing according to hardware.

176. A storage medium storing therein a program as claimed in claim 159, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

177. A storage medium storing therein a program as claimed in claim 160, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

178. A storage medium storing therein a program as claimed in claim 161, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

179. A storage medium storing therein a program as claimed in claim 162, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

180. A storage medium storing therein a program as claimed in claim 163, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

181. A storage medium storing therein a program as claimed in claim 164, wherein said program further executes interruption number

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generation processing for generating interruption number to interruption processing according to hardware.

182. A storage medium storing therein a program as claimed in claim 165, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

183. A storage medium storing therein a program as claimed in claim 166, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

184. A storage medium storing therein a program as claimed in claim 167, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

185. A storage medium storing therein a program as claimed in claim 168, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

186. A storage medium storing therein a program as claimed in claim 169, wherein said program further executes interruption number generation processing for generating interruption number to interruption processing according to hardware.

187. A storage medium storing therein a program as claimed in claim 170, wherein said program further executes interruption number

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generation processing for generating interruption number to interruption processing according to hardware.

5 188. A storage medium storing therein a program as claimed in claim 152, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

5 189. A storage medium storing therein a program as claimed in claim 155, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

5 190. A storage medium storing therein a program as claimed in claim 156, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

5 191. A storage medium storing therein a program as claimed in claim 157, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

192. A storage medium storing therein a program as claimed in claim 158, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption

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5 instruction with respect to said interruption instruction according to software.

193. A storage medium storing therein a program as claimed in claim 159, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

194. A storage medium storing therein a program as claimed in claim 160, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

195. A storage medium storing therein a program as claimed in claim 161, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

196. A storage medium storing therein a program as claimed in claim 162, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

197. A storage medium storing therein a program as claimed in claim 163, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption

instruction with respect to said interruption instruction according to software.

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A10 198. A storage medium storing therein a program as claimed in claim 164, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

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199. A storage medium storing therein a program as claimed in claim 165, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

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200. A storage medium storing therein a program as claimed in claim 166, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

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201. A storage medium storing therein a program as claimed in claim 167, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

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202. A storage medium storing therein a program as claimed in claim 168, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption



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5 instruction with respect to said interruption instruction according to software.

203. A storage medium storing therein a program as claimed in claim 169, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

204. A storage medium storing therein a program as claimed in claim 170, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

205. A storage medium storing therein a program as claimed in claim 171, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

206. A storage medium storing therein a program as claimed in claim 172, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

207. A storage medium storing therein a program as claimed in claim 173, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption

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5 instruction with respect to said interruption instruction according to software.

208. A storage medium storing therein a program as claimed in claim 174, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to  
5 software.

209. A storage medium storing therein a program as claimed in claim 175, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to  
5 software.

210. A storage medium storing therein a program as claimed in claim 176, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to  
5 software.

211. A storage medium storing therein a program as claimed in claim 177, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to  
5 software.

212. A storage medium storing therein a program as claimed in claim 178, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption

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5 instruction with respect to said interruption instruction according to software.

213. A storage medium storing therein a program as claimed in claim 179, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

214. A storage medium storing therein a program as claimed in claim 180, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

215. A storage medium storing therein a program as claimed in claim 181, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

216. A storage medium storing therein a program as claimed in claim 182, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

217. A storage medium storing therein a program as claimed in claim 183, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption

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5 instruction with respect to said interruption instruction according to software.

218. A storage medium storing therein a program as claimed in claim 184, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

219. A storage medium storing therein a program as claimed in claim 185, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

220. A storage medium storing therein a program as claimed in claim 186, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

221. A storage medium storing therein a program as claimed in claim 187, wherein said program further executes interruption number decoding processing for decoding interruption number from interruption instruction with respect to said interruption instruction according to software.

222. A storage medium storing therein a program as claimed in claim 150, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in

A10 5 such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

223. A storage medium storing therein a program as claimed in claim 151, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

224. A storage medium storing therein a program as claimed in claim 152, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

225. A storage medium storing therein a program as claimed in claim 153, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to

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said access right judgement processing, before executing supporting processing by said memory with the extended address.

226. A storage medium storing therein a program as claimed in claim 154, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

227. A storage medium storing therein a program as claimed in claim 155, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

228. A storage medium storing therein a program as claimed in claim 156, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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5 229. A storage medium storing therein a program as claimed in claim 157, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

230. A storage medium storing therein a program as claimed in claim 158, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

231. A storage medium storing therein a program as claimed in claim 159, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

232. A storage medium storing therein a program as claimed in claim 160, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in

A10 5 such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

233. A storage medium storing therein a program as claimed in claim 161, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

234. A storage medium storing therein a program as claimed in claim 162, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

235. A storage medium storing therein a program as claimed in claim 163, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to



said access right judgement processing, before executing supporting processing by said memory with the extended address

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236. A storage medium storing therein a program as claimed in claim 164, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

237. A storage medium storing therein a program as claimed in claim 165, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

238. A storage medium storing therein a program as claimed in claim 166, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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5 239. A storage medium storing therein a program as claimed in claim 167, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

240. A storage medium storing therein a program as claimed in claim 168, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

241. A storage medium storing therein a program as claimed in claim 169, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

242. A storage medium storing therein a program as claimed in claim 170, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in

5 such a way that said address/operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

AP 243. A storage medium storing therein a program as claimed in claim 171, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

244. A storage medium storing therein a program as claimed in claim 172, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

245. A storage medium storing therein a program as claimed in claim 173, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to

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said access right judgement processing, before executing supporting processing by said memory with the extended address.

246. A storage medium storing therein a program as claimed in claim 174, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

247. A storage medium storing therein a program as claimed in claim 175, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

248. A storage medium storing therein a program as claimed in claim 176, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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5 249. A storage medium storing therein a program as claimed in claim 177, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

5 250. A storage medium storing therein a program as claimed in claim 178, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

5 251. A storage medium storing therein a program as claimed in claim 179, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

252. A storage medium storing therein a program as claimed in claim 180, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in

such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to  
 said access right judgement processing, before executing supporting  
 processing by said memory with the extended address.

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 253. A storage medium storing therein a program as claimed in  
 claim 181, wherein said program executes an address operational  
 processing in order to convert a CPU address into an extended address in  
 such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to  
 said access right judgement processing, before executing supporting  
 processing by said memory with the extended address.

254. A storage medium storing therein a program as claimed in  
 claim 182, wherein said program executes an address operational  
 processing in order to convert a CPU address into an extended address in  
 such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to  
 said access right judgement processing, before executing supporting  
 processing by said memory with the extended address.

255. A storage medium storing therein a program as claimed in  
 claim 183, wherein said program executes an address operational  
 processing in order to convert a CPU address into an extended address in  
 such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to

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 said access right judgement processing, before executing supporting processing by said memory with the extended address.

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 256. A storage medium storing therein a program as claimed in claim 184, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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 257. A storage medium storing therein a program as claimed in claim 185, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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 258. A storage medium storing therein a program as claimed in claim 186, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

259. A storage medium storing therein a program as claimed in claim 187, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

260. A storage medium storing therein a program as claimed in claim 188, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

261. A storage medium storing therein a program as claimed in claim 189, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

262. A storage medium storing therein a program as claimed in claim 190, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in

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such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to  
 said access right judgement processing, before executing supporting  
 processing by said memory with the extended address.

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 263. A storage medium storing therein a program as claimed in  
 claim 191, wherein said program executes an address operational  
 processing in order to convert a CPU address into an extended address in  
 such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to  
 said access right judgement processing, before executing supporting  
 processing by said memory with the extended address.

264. A storage medium storing therein a program as claimed in  
 claim 192, wherein said program executes an address operational  
 processing in order to convert a CPU address into an extended address in  
 such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to  
 said access right judgement processing, before executing supporting  
 processing by said memory with the extended address.

265. A storage medium storing therein a program as claimed in  
 claim 193, wherein said program executes an address operational  
 processing in order to convert a CPU address into an extended address in  
 such a way that said address operational processing causes said CPU  
 5 address to be converted into said extended address when said task is  
 judged that said task is permitted to access to said data area according to

A10 said access right judgement processing, before executing supporting processing by said memory with the extended address.

266. A storage medium storing therein a program as claimed in claim 194, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

267. A storage medium storing therein a program as claimed in claim 195, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

268. A storage medium storing therein a program as claimed in claim 196, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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5 such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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5 273. A storage medium storing therein a program as claimed in claim 201, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

5 274. A storage medium storing therein a program as claimed in claim 202, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

5 275. A storage medium storing therein a program as claimed in claim 203, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to

said access right judgement processing, before executing supporting processing by said memory with the extended address.

276. A storage medium storing therein a program as claimed in claim 204, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

277. A storage medium storing therein a program as claimed in claim 205, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

278. A storage medium storing therein a program as claimed in claim 206, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

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Al<sup>10</sup> 5 such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

283. A storage medium storing therein a program as claimed in claim 211, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

284. A storage medium storing therein a program as claimed in claim 212, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

285. A storage medium storing therein a program as claimed in claim 213, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to

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289. A storage medium storing therein a program as claimed in claim 217, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

290. A storage medium storing therein a program as claimed in claim 218, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

291. A storage medium storing therein a program as claimed in claim 219, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU  
5 address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.

292. A storage medium storing therein a program as claimed in claim 220, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in

293. A storage medium storing therein a program as claimed in claim 221, wherein said program executes an address operational processing in order to convert a CPU address into an extended address in such a way that said address operational processing causes said CPU address to be converted into said extended address when said task is judged that said task is permitted to access to said data area according to said access right judgement processing, before executing supporting processing by said memory with the extended address.